

U.S. Patent Application Serial No. 10/537,376
Amendment filed June 2, 2010
Reply to OA dated January 5, 2010

REMARKS

Claims 1-20 are pending in this application, with claims 5-10 and 14-20 withdrawn from consideration. Claim 1 is amended herein. Upon entry of this amendment, claims 1-20 will be pending, with claims 5-10 and 14-20 withdrawn from consideration. Entry of this amendment and reconsideration of the rejections are respectfully requested.

No new matter has been introduced by this Amendment. Support for the amendments to the claims is detailed below.

Summary of Interview conducted April 29, 2010.

Applicant's agent, Daniel Geselowitz, conducted a personal interview with Examiner Shuarnyi Abu Ali on April 29, 2010. Possible amendments to clarify the structure of the calcium phosphate base particulate compound of claim 1 were discussed.

The rejection of claims 1-4 and 11-13 under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,663,948 set forth in the previous Office action stands. (Office action page 2)

Reconsideration of the rejection is respectfully requested in view of the amendment to claim 1.

Claim 1 has been amended to limit the upper limit of Tg to "100" mg/g. Support for this amendment may be found on page 7, lines 5-6: "it is preferably in a range of 1 to 100 mg/g."

In addition, claim 1 has been amended to add a product-by-process limitation on the preparation of the claimed calcium phosphate base particulate compound. General support for this product-by-process limitation may be found in method claim 5 of the application. However, in amended claim 1, the lower limit of the heating temperature in the step (C) is “100 °C.” Support for the lower limit of “100 °C” may be found at page 19, lines 3-4: “it is more preferably in a range of 100 to 170 °C.”

The calcium phosphate base particulate compound as recited in claim 1 is made by a different method than that in Takiyama et al. ‘948. In particular, claim 1 requires “(C) heating the obtained calcium phosphate compound at **100 to 180 °C.**”

In contrast, in Takiyama et al., the compound is heated at 20-97 °C in the aging step (Col. 7, line 2). The maximum aging temperature in Takiyama et al. is 97 °C and the minimum in claim 1 is 100 °C, and therefore, there is **no overlap** between the temperature range in Takiyama et al. and that in present claim 1.

Applicant submits that the material made by the method of Takiyama is **inherently structurally different** from the product made by the process limitation of claim 1. To demonstrate this fact, Applicant here provides evidence in the form of a Declaration under 37 CFR 1.132 (by Hidemitsu KASAHARA, signed May 25, 2010) that material made at the maximum temperature in Takiyama et al. (97 °C) is different from that made at the minimum temperature in claim 1 (100 °C).

Table A on page 4 of the Declaration exhibits comparative data which were prepared to demonstrate how the results are different at a heating temperature of 100 °C and 97 °C.

Additional Example 1 was heated at 100 °C and Additional Comparative Example 1 was heated at 97 °C. In Additional Example 1, Tg of the product is 91 mg/g, while in Additional Comparative Example 1, Tg is 126 mg/g. That is, there is a distinct difference in properties of the product as a result of the difference in aging step temperature. Applicant notes that the Tg value for Additional Example 1 is within the range for Tg recited in claim 1, while the Tg value for Additional Comparative Example is outside the recited range, being above the maximum value of 100.

Applicant submits that since there is **no overlap** between the aging step temperature range in Takiyama et al. '948 and that in claim 1, there is **no suggestion or motivation** in Takiyama et al. for this limitation of claim 1.

Moreover, Applicant submits that the above results represent an **unexpected advantage** commensurate in scope with the process limitations of claim 1. In particular, the thermal stability improves significantly from 126 mg/g to 91 mg/g as a result of an increase of just 3 °C in heating treatment temperature. Such an improvement as a result of a small increase in temperature is clearly unexpected over Takiyama et al.

Therefore, claims 1-4 and 11-13, as amended, are not obvious over US Patent No. 6,663,948.


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If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicant's undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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Enclosures: Request for Continued Examination (RCE)
Petition for Extension of Time
Declaration Under 37 CFR 1.132 signed by Mr. Hidemitsu KASAHARA

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